SYSTEM AND METHOD FOR ACCESSING
REGISTERS OF PHY DEVICE IN NETWORK

ABSTRACT OF THE DISCLOSURE

A system and method for accessing registers of a PHY device in a network
including an extended protocol software layer between the protocol and application
layers, on the one hand, and the MAC driver, on the other hand. The extended
protocol layer generates the PHY device register read and write commands and
embeds them within standardized Ethernet data packets. The extended PHY device is
adapted to distinguish these register read and write command packets from normal
data packets and intercept and parse them to retrieve the commands. Likewise, the
extended PHY device embeds the read and write acknowledgments in standardized
Ethernet data packets that the extended protocol layer, in turn, can distinguish from
normal Ethernet data packets and intercept and parse them to retrieve the
acknowledgments.

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